



Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference<br><br>P802078/WO/1                                      | FOR FURTHER ACTION  | See Form PCT/IPEA/416   |
| International application No.<br><br>PCT/EP2003/012936   | International filing date (day/month/year)<br><br>19 November 2003 (19.11.2003) | Priority date (day/month/year)<br><br>20 December 2002 (20.12.2002) |
| International Patent Classification (IPC) or national classification and IPC<br><br>F02M 61/04 |   |   |
| Applicant<br><br>DAIMLERCHRYSLER AG  |   |   |

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| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>6</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p> <input checked="" type="checkbox"/> Box No. I Basis of the report<br/> <input type="checkbox"/> Box No. II Priority<br/> <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability<br/> <input type="checkbox"/> Box No. IV Lack of unity of invention<br/> <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement<br/> <input type="checkbox"/> Box No. VI Certain documents cited<br/> <input type="checkbox"/> Box No. VII Certain defects in the international application<br/> <input type="checkbox"/> Box No. VIII Certain observations on the international application     </p> |
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|---|---|
| Date of submission of the demand<br><br>16 July 2004 (16.07.2004) | Date of completion of this report<br><br>24 January 2005 (24.01.2005) |
| Name and mailing address of the IPEA/EP                           | Authorized officer  |
| Facsimile No.   | Telephone No.   |

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Application No.  
PCT/EP2003/012936

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

international search (under Rules 12.3 and 23.1(b))  
 publication of the international application (under Rule 12.4)  
 international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

The international application as originally filed/furnished

the description:

pages \_\_\_\_\_ 1, 5, 6 \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ 2-4, 4a \_\_\_\_\_ received by this Authority on 25 November 2004 (25.11.2004)  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:

pages \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_, as amended (together with any statement)-under Article 19  
 pages\* \_\_\_\_\_ 1-11 \_\_\_\_\_ received by this Authority on 25 November 2004 (25.11.2004)  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:

pages \_\_\_\_\_ 1/2, 2/2 \_\_\_\_\_, as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to sequence listing (specify): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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PCT/EP 12936

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

|                               |        |      |     |
|-------------------------------|--------|------|-----|
| Novelty (N)                   | Claims | 1-11 | YES |
|                               | Claims |      | NO  |
| Inventive step (IS)           | Claims | 1-11 | YES |
|                               | Claims |      | NO  |
| Industrial applicability (IA) | Claims | 1-11 | YES |
|                               | Claims |      | NO  |

## 2. Citations and explanations

Reference is made to the following document:

**D1: DE 41 19 402 A**

Document D1 is considered the prior art closest to the subject matter of claim 1 and shows a sliding valve, from which the subject matter of claim 1 differs in that at least one elongated slot is provided in the sliding sleeve in the region of the control face.

The present invention can therefore be considered to address the problem of reducing the response times of the valve.

The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

- reducing the mass of a movable element such as the sliding sleeve would undoubtedly result in the element having a quicker reaction time, but the form that the reduction might take is not indicated in the cited prior art. Generally

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known and common solutions would also be available to a person skilled in the art, but these could not necessarily be readily implemented or applied.

Claims 2-11 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.

The claimed invention is industrially applicable.